

SWBAT

observe / identify what affects speed
of falling objects

Sep 4-7:31 AM

Welcome!!!

SECA CP Physics
Wednesday 18 November 2015



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Room C-244

- Open to page 33, 35, 37 for check-off
- Pick up Friday's worksheet

Centering
(animals)

Opening Question:

When might we care about "free fall"?

ANYTHING LAUNCHED, THROWN, KICKED
INTO THE AIR

<http://www.buzzfeed.com/elainawahl/baby-animals-are-actual-sunshine> 6-10



Class business: pizza party

Sep 7-7:04 AM

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Sep 5-9:09 AM

Pg 39:

Three-act physics: Falling glowsticks.

TOO HIGHS: 1000 ft, 600 ft, 2000 ft, 400 ft 1 mile

TOO LOWS: 10 ft, 30 ft, 4 ft, 4 ft 10 ft

$$2] \text{ disp} = ? = \Delta y = \cancel{0(2.8s)} + \frac{1}{2} \cdot (-9.8 \frac{m}{s^2}) \cdot (2.8s)^2$$

$$\Delta t = 2.8s$$

$$a_y = g = -9.81 \frac{m}{s^2}$$

DOWN

$$v_i = 0 \frac{m}{s}$$

$$[\underline{v_f} = \Delta t \cdot g = 2.8 \cancel{s} \times 9.81 \frac{m}{s^2} = 27.468 \frac{m}{s}]$$

DOWN

$$\Delta y = -38.4552 \cancel{m} \times \frac{3.281 \cancel{ft}}{1 \cancel{m}} = 126.2 \cancel{ft}$$

Homework Page 38: Create a free fall word problem that uses the UAM equations.

Nov 18-9:08 AM

What's the big picture?

What is UAM when we're talking about "free fall"?

$$\Delta y = \text{DISP} = "d"$$

V_i = HOW FAST WHEN I T. ...
LEFT THE (HAND)

$$V_f =$$

$$a_y = -g = -9.81 \text{ m/s}^2$$

$$\Delta t = \text{TIME IN AIR}$$

Nov 18-9:08 AM

GRAVITY: g

SPEEDS THINGS UP \downarrow 10m/s
EVERY
SECOND

$$V_i = \downarrow 20 \text{ m/s} \quad \$20$$

$$\rightarrow g + 10 \text{ m/s EVERY SECOND} \quad \$10 \text{ EVERY SECOND}$$

$$20 \text{ m/s} + 10 \text{ m/s} + 10 \text{ m/s} + 10 \text{ m/s} =$$

1s 2s 3s

Nov 17-9:55 AM